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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,176	09/17/2003	John L. White	P214414	8586
30662	7590	06/07/2006	EXAMINER	
SCHACHT LAW OFFICE, INC. SUITE 202 2801 MERIDIAN STREET BELLINGHAM, WA 98225-2412			TRUONG, THANH K	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SR

<b>Office Action Summary</b>	<b>Application No.</b> 10/667,176	<b>Applicant(s)</b> WHITE, JOHN L.	
	<b>Examiner</b> Thanh K. Truong	<b>Art Unit</b> 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1,4-6,8,9,12,13,15,18,19 and 21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4-6,8,9,12,13,15,18,19 and 21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to applicant's amendment received on April 11, 2006.
2. Applicant's cancellation of claims 2, 3, 7, 10, 11, 14, 16, 17 and 20 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-6, 8, 9, 12, 13, 15, 18, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheid et al. (6,102,133) in view of Martin et al. (4,844,661).

Scheid et al. discloses an apparatus and a method comprising:

a housing member (10) defining a housing chamber (62); a ram member (26) supported within the housing chamber for movement relative to the housing member between an upper position and a lower position; and a vent port (36) arranged between the lower and upper positions, where the vent port defines a preload position, and allows ambient air to flow into and out of the housing chamber under predetermined conditions;

a helmet member (12) supported by the housing member for movement relative to the housing member between a rest position and an impact position; and

a lifting assembly (68) engages the ram member to lift the ram member from the lower position to the upper position during each cycle; whereby

when the lifting system raises the ram member above the preload position, ambient air flows into the housing chamber;

when the ram member falls below the preload position, ambient air within a preload chamber portion of the housing chamber compresses to apply a preload force on the inner portion of the helmet member (column 7, lines 17-20); and

when the ram member moves into the lower position, the ram member impacts the helmet member to force the helmet member from the rest position to the impact position, thereby driving the pile.

Scheid et al. discloses the claimed invention, but does not expressly disclose the lifting assembly at least partly disposed within the housing chamber above the ram member, where the lifting assembly lifts.

However, Scheid et al. discloses that the operation can be switched between "hard hammering" (diesel type) and "soft hammering" (drop hammer type) (column 1, lines 35-37).

Martin et al. discloses an apparatus and a method in which a lifting assembly (2, 7) disposed above the ram member, and engaged the ram member (3) to lift the ram member from the lower position to the upper position during each cycle (abstract – figures 1 & 2) providing a simple and economical means to lift and to release the ram member (column 1, lines 15-25).

Therefore, it would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified Scheid et al. method and apparatus by incorporating the lifting assembly as taught by Martin et al. providing a simple and economical means to lift and to release the ram member.

The Scheid et al. modified by Martin et al. further disclose: air is prevented from flowing through the vent port when the ram member is below the preload position (column 7, lines 17-20); seal system for sealing the preload chamber portion of the housing chamber when the ram member is below the preload position (figure 1 of Scheid et al. shows ram 26 and helmet member 12 have seal members at their distal ends); and the ram member defines a ram side wall; the housing member defines a housing interior wall; the seal system comprises a ram seal for inhibiting fluid flow between the ram side wall and the housing interior wall (Scheid et al. inherently discloses these limitations, because the system was designed also for diesel type hammering as well as drop hammer type).

It is further construed that the pile inherently being secured by the drop hammer in order for the pile to be driven into the ground.

### ***Response to Arguments***

5. Applicant's arguments filed April 11, 2006 have been fully considered but they are not persuasive.

6. In response to the Applicant's arguments that:

*"absent the Applicant's own disclosure, nothing in the record would motivate one of ordinary skill in the art to combine a diesel hammer as*

*taught by Scheid reference with a drop hammer as taught by the Martin reference” (page 3, lines 21-24), and*

*“one of ordinary skill in the art would not be motivated to combine a sealed chamber as taught by the Scheid reference with a drop hammer as disclosed in the Martin reference” (page 4, lines 24-27),*

it is not found persuasive for the following reasons:

Scheid et al. discloses that:

*“There are other prior art pile hammers, wherein a hammering piston is lifted by means of a hydraulic actuator arranged outside of a guiding cylinder, the hammering piston thereafter being allowed to fall freely onto the hammering member. Such softly operating pile hammers are used particularly, where piles and the like must be hammered into soft soil or where production of heavy nose as produced by Diesel type pile hammers cannot be tolerated.” (emphases added) (column 1, lines 19-26), and*

*“The object of the present invention is to improve a pile hammer such that its mode of operation can be switched between hard hammering and soft hammering.” (emphases added) (column 1, lines 35-37).*

Scheid et al. clearly teaches and suggests that it is possible to switch between diesel hammering type and drop hammering type. The Martin reference is further demonstrated that drop hammering type is old and well known.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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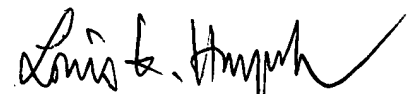
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh K. Truong whose telephone number is 571-272-4472. The examiner can normally be reached on Mon-Thru 8:00AM - 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tkf  
May 30, 2006.

  
**LOUIS K. HUYNH**  
**PRIMARY EXAMINER**